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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------|-------------|----------------------|---------------------|------------------|
| 10/810,973 | 03/25/2004 | A. Michael Baca | SAL-1003 | 9641 |
| 7590 | | 09/12/2005 | EXAMINER | |
| Luis M. Ortiz | | LAWRENCE JR, FRANK M | | |
| P.O. Box 4484 | | ART UNIT | | |
| Albuquerque, NM 87196 | | PAPER NUMBER | | |
| | | 1724 | | |
| DATE MAILED: 09/12/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/810,973 | Applicant(s) BACA ET AL. | |
| | Examiner Frank M. Lawrence | Art Unit 1724 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20-22 is/are rejected.
- 7) ☒ Claim(s) 19 and 23-25 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

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DETAILED ACTION

Priority

1. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows:

If the prior application is a non-provisional application, the specific reference must also include the relationship (i.e., continuation, divisional, or continuation-in-part) between the applications except when the reference is to a prior application of a CPA assigned the same application number. In this case, the relationship with 10/389,355 is unclear because the second sentence states "This Continuation-in-Part also claims priority to..." but does not specify that it is a CIP of the parent application.

Drawings

2. The drawings are objected to because Figures 8A, 9A and 10A are not clear, particularly in the text portions.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 1050, 1060.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

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informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: The reference number "70" should be deleted from paragraph 50 because it is used to refer to another item in paragraph 51. It appears that the UVc range given in paragraph 44 contrasts with ranges given in the prior art (usually about 200-290 nm). Applicant is requested to address this difference. Any correction made to the range will not be considered to be new matter because the UVc wavelength range is known in the art. In line 5 of claim 11, "," should be deleted.

Appropriate correction is required.

Information Disclosure Statement

5. The listing of references in the specification (page 14) is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-4 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which

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applicant regards as the invention. Claim 1 is indefinite because the phrase "might be contained" does not indicate whether or not potentially harmful microorganisms are within the fluid. The phrase should be changed to "are". Claims 2-4 are rejected for depending from a rejected parent claim.

8. Claim 21 recites the limitation "said housing" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 5-18 and 20-22 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4, 6-14 and 18-22 of copending Application No. 10/389,355. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims recite the treatment of a fluid instead of water. One having ordinary skill in the art would realize that the recited structure is inherently capable of conducting any type of fluid. Also note that the references to Goudy, Jr. and Tribelski discussed in this office action teach laser UV treatment systems that can be used to treat either liquids or gases.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

11. Claims 5 and 6 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 10 and 11 of U.S. Patent No. 6,740,244.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims recite the treatment of fluid instead of water and the use of an ultraviolet laser instead of a semiconductor laser. One having ordinary skill in the art would understand that the prior system could be used to treat other fluids as discussed above, and that a non-semiconductor UV laser could be used to kill (render ineffective) microorganisms in fluids, especially in light of the patent specification.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Tribelski (6,468,433).

14. Tribelski '433 teaches a system for killing microorganisms in an air conduit or water treatment system such as a dialysis unit by deactivating DNA in the fluid, comprising a chamber with an entry point and exit point for receiving the fluid and an ultraviolet laser coupled to the

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chamber with fiber optics for applying UV light at between 220nm-2400 nm (see figures, col. 1, lines 46-56, col. 7, lines 41-46, col. 13, lines 8-23, col. 15, lines 4-11, col. 16, lines 38-51, col. 21, lines 21-32, col. 24, lines 35-58, claim 16). Also, it is disclosed that UV light at between 250-280 nm is optimum for deactivating DNA sequences (col. 6, lines 11-31).

15. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Goudy, Jr. (4,661,264).

16. Goudy, Jr. '264 teaches a system for the laser disinfection of liquids or gases such as air flowing in a duct, comprising a treatment chamber (50) having an entry point and exit point for receiving a fluid and an ultraviolet laser (10) coupled to the chamber for applying UV light at 249 nm (within the optimum range for DNA deactivation) to disinfect and kill bacteria in the fluid (see figures, col. 1, lines 64-68, col. 5, line 43 to col. 6, line 12, col. 9, lines 43-64).

17. Claims 1 and 3-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Matschke (5,874,741).

18. Matschke '741 teaches a system for disinfecting water that can be used in dialysis equipment, comprising a treatment chamber (1) having an entry point and an exit point for receiving water, and one or more lasers to apply UV light at 253.7 nm for destroying microorganisms in the water (see figures, claims 1, 11, col. 2, lines 33-66, col. 4, lines 59-64).

19. Claims 1 and 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Safta (5,376,281).

20. Safta '281 teaches a system for killing and removing microorganisms in drinking water to be bottled, comprising a treatment chamber having an entry point and an exit point for receiving

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water, and a UV laser (142) for applying UV light at 200-300 nm to water in the chamber (figures, col. 2, lines 19-24, col. 6, lines 44-60).

Allowable Subject Matter

21. Claims 19 and 23-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional references listed on the attached PTO 892 form disclose UV fluid treatment devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank M. Lawrence whose telephone number is 571-272-1161. The examiner can normally be reached on Mon-Thurs 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Frank M. Lawrence
Primary Examiner
Art Unit 1724

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Frank Lawrence
6-24-05